

(No Model.)

J. C. MITCHELL.
CAR COUPLING.

No. 343,473.

Patented June 8, 1886.

Fig. 1.

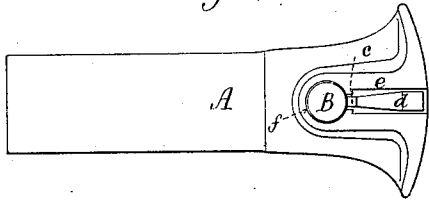


Fig. 4.

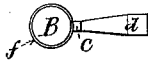


Fig. 5.

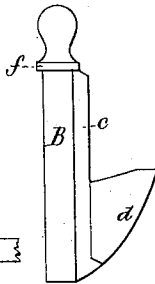


Fig. 2.

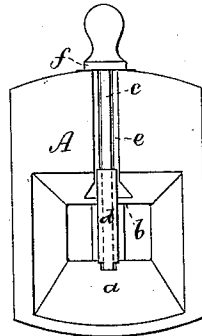


Fig. 3.

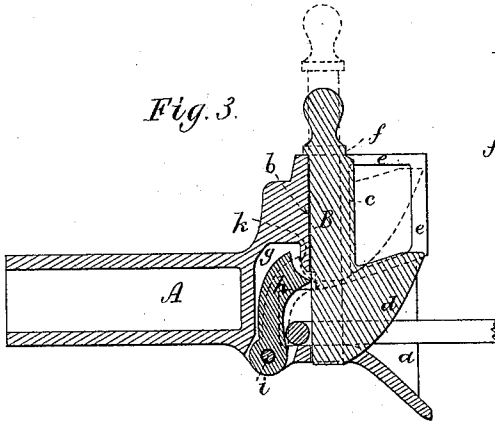
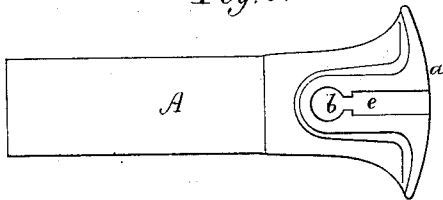


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES CHARLES MITCHELL, OF LANCASTER, ASSIGNOR, BY MESNE ASSIGNMENTS, TO SAID MITCHELL, AND B. FRANK BROWN, OF CONCORD, NEW HAMPSHIRE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 343,473, dated June 8, 1886.

Application filed November 30, 1885. Serial No. 184,261. (No model.)

To all whom it may concern:

Be it known that I, JAMES CHARLES MITCHELL, of Lancaster, in the county of Coos, of the State of New Hampshire, have invented a new and useful Improvement in Railway-Car Couplings; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation or end view, and Fig. 3 a longitudinal section, of a coupling containing my invention, the nature of which is defined in the claim hereinafter presented. Fig. 4 is a top view, and Fig. 5 a side elevation, of the coupling-pin, with its cam in one piece with such pin. Fig. 6 is a top view of the draw-bar.

In the said drawings, A denotes a car draw-bar, provided, as usual, with a flaring mouth, *a*, to receive a connection-link. There extends upward vertically through such mouth a passage, *b*, for reception of the link-holding pin B. The said pin has projecting from it down its front a rib, *c*, that terminates in a cam, *d*, extending from the pin forward thereof in manner as represented, the pin, rib, and cam being integral or in one piece.

From the mouth of the draw-bar and opening into the pin-passage *b* there goes upward to the top of such bar a passage, *e*, of a width or size in horizontal section a little greater than that of the cam, in order that the pin and the cam may be extracted from the draw-bar as occasion may require. When in its lowest position the pin is supported by its shoulder *f* resting on the top of the draw-bar.

On the link being driven into the mouth of the draw-bar, such link will butt against the curved front edge of the cam, and, continuing to advance, will force the cam, and consequently the pin, upward, until the link may bring up against the rear part of the mouth. On the link having reached such a position the pin and cam will drop into the link and to their lowest position, and in so doing will couple the link to the draw-bar.

Within the draw-bar, in rear of its mouth, is a narrow chamber, *g*, for the reception of a gravitating-catch, *h*, for supporting the link-pin with the cam raised above the said mouth. This catch, formed as represented, turns freely

on a pin, *i*, extending through it and the draw-bar. When forward, the catch brings up against an abutment, *k*, in the upper part of the said chamber, the catch at the same time extending underneath the link-pin.

When the pin is up and supported by the catch and the link is driven into the draw-bar, the link will force the catch rearward from the pin so as to allow the latter to drop into the link.

The rib on the front of the link-pin is to keep such pin from accidentally turning around so as to cause the cam to catch under the top or roof of the mouth on the pin being drawn upward.

I herein do not claim a car-coupling constructed as represented in the United States Patent No. 259,647, granted to myself and others, assignees of myself as inventor, as I have in my present car-coupling no elevating pawl hinged or pivoted to the link-pin; nor do I claim car-couplings as described and represented in the United States Patents Nos. 182,856 and 267,142, as in my car-coupling the pin has a cam for effecting its rise by the link when forced against the said cam, and both pin and cam play vertically only, and have no lateral or rearward motion; and, furthermore, my coupling is provided with a gravitating catch to hold the pin and cam in their elevated position. In the coupling of the Patent No. 267,142 there is nothing to be moved by the hook in order to release the catch for it to fall through the link while the latter may be entering the draw-bar. In the coupling shown in the Patent No. 187,856 there is to the pin no cam projecting from it and to effect its rise by the link. Nor do I claim a car-coupling as represented in the United States Patent No. 181,807, which, though having a gravitating catch to hold up the link-pin, does not have to such pin any cam to effect the upward movement of the pin by means of the link when forced against it when down in its lowest position in the draw-bar; nor do I claim a pin provided with a cam for raising it by the action of the link, and also with a lever for lifting the pin out of the link in order to uncouple the link and pin, all being as shown in the United States Patent No. 280,016.

My car-coupling has its pin provided with

a rib and a cam projecting therefrom, all of which is to move vertically within the draw-bar, constructed, as described, to permit of such; and, furthermore, my said car-coupling
5 has a gravitating catch to hold the link-pin in an elevated position, it being very important that the link-pin should move vertically.

I claim—

10 The combination of the draw-bar provided with the mouth, the catch-chamber, and the

pin, rib, and cam passages arranged in it, as set forth, with the link-connection pin, its rib and cam, and with the gravitating catch arranged in the said draw-bar and applied thereto, substantially in manner to operate as specified.
15

JAMES CHARLES MITCHELL.

Witnesses:

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